

IN THE CLAIMS

Please cancel claims 2-5, 7, 9, 14-19, 26-29, 31-33, 36-39, 41-43, 46-49 and 51-53.

Please amend claims 1, 6, 8, 10-13, 20-25, 30, 34, 35, 40, 44, 45, 50 and 54.

All pending claims are reproduced below.

1. (Currently Amended) A method for an IPv6 enabled node to engage in IPv6 communication across a network containing IPv4 components, the method comprising:

~~the IPv6 enabled node sending a query to a Domain Name System server, the query identifying the IPv6 enabled node;~~
~~responsive to sending the query, the IPv6 enabled node receiving at least one identifier of at least one IPv6 connect agent from the Domain Name System server;~~
~~the IPv6 enabled node determining an IPv6 connect agent to use to engage in IPv6 communication across the network containing IPv4 components;~~
~~the IPv6 enabled node determining an address of that IPv6 connect agent; and~~
~~the IPv6 enabled node engaging in IPv6 communication across the network containing IPv4 components, using the determined address to communicate with that IPv6 connect agent;~~
transmitting a query identifying the IPv6 enabled node to a Domain Name System server;
receiving at least one name of an IPv6 connect agent from the Domain Name System server;
transmitting a name of a desired IPv6 connect agent to the Domain Name System server;
receiving an address of the desired IPv6 connect agent from the Domain Name System server; and

engaging in IPv6 communication across the network using the address.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Currently Amended) The method of ~~claim 5 wherein the IPv6 enabled node determining an IPv6 connect agent to use to engage in IPv6 communication across the network containing IPv4 components comprises: the IPv6 enabled node choosing the IPv6 connect agent that is physically closest to the IPv6 enabled node~~ claim 1, wherein the desired IPv6 connect agent is one closest to the IPv6 enabled node.

7. (Cancelled)

8. (Currently Amended) The method of claim 1, wherein ~~the IPv6 enabled node determining an IPv6 connect agent to use to engage in IPv6 communication across the network containing IPv4 components comprises: the IPv6 enabled node choosing the IPv6 connect agent whose identifier the IPv6 enabled node received first~~ the desired IPv6 connect agent is one whose name is first received from the Domain Name System server.

9. (Cancelled)

10. (Currently Amended) The method of claim 1, wherein~~[[:]]~~ the query sent by the IPv6-enabled node to the Domain Name System server comprises an Internet Protocol address.

11. (Currently Amended) The method of claim 1, wherein~~[[:]]~~ the query sent by the IPv6-enabled node to the Domain Name System server comprises a Media Access Control address.

12. (Currently Amended) The method of claim 1, wherein~~[[:]]~~ the query sent by the IPv6-enabled node to the Domain Name System server comprises a character string.

13. (Currently Amended) A method for a Domain Name System server in a network containing IPv4 components to provide to an IPv6 enabled node an address of an IPv6 connect agent, the method comprising:

~~the Domain Name System server receiving a query from an IPv6 enabled node, the query identifying the IPv6 enabled node;~~

~~responsive to the Domain Name System server receiving the query, the Domain Name System server determining at least one identifier of at least one IPv6 connect agent; and~~

~~the Domain Name System server sending to the IPv6 enabled node at least one identifier of at least one IPv6 connect agent;~~

receiving a query identifying the IPv6 enabled node from the IPv6 enabled node;

transmitting at least one name of one IPv6 connect agent to the IPv6 enabled node;

receiving a name of a desired IPv6 connect agent from the IPv6 enabled node; and

transmitting an address of the desired IPv6 connect agent to the IPv6 enabled node.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Currently Amended) The method of claim 13, ~~19~~, wherein the Domain Name System server determining at least one identifier of at least one IPv6 connect agent comprises:

~~using the received name of the desired IPv6 connect agent to find a record in a lookup table; and~~

~~gleaning from the found record an identifier of an IPv6 connect agent to send to the IPv6 enabled node further comprising:~~

searching a record corresponding to the name of the desired IPv6 connect agent from a lookup table; and

finding the address of the desired IPv6 connect agent from the record.

21. (Currently Amended) The method of claim ~~[[13]]~~ 20, wherein the Domain Name System server determining at least one identifier of at least one IPv6 connect agent comprises: using the record is a Naming Authority Pointer Domain Name System resource record.

22. (Currently Amended) The method of claim 13, wherein the query ~~received by the Domain Name System server~~ comprises an Internet Protocol address.

23. (Currently Amended) The method of claim 13, wherein the query received by the ~~Domain-Name-System-server~~ comprises a Media Access Control address.

24. (Currently Amended) The method of claim 13, wherein the query received by the ~~Domain-Name-System-server~~ comprises a character string.

25. (Currently Amended) ~~An system for an IPv6 enabled node to engage~~ for engaging in IPv6 communication across a network containing IPv4 components, the system node comprising:

~~a software portion configured to send a query to a Domain-Name-System server, the query identifying the IPv6 enabled node;~~

~~a software portion configured to receive at least one identifier of a least one IPv6 connect agent from the Domain-Name-System server, responsive to having sent the query;~~

~~a software portion configured to determine an IPv6 connect agent to use to engage in IPv6 communication across the network containing IPv4 components;~~

~~a software portio configured to determine an address of that IPv6 connect agents; and~~

~~a software portion configured to engage in IPv6 communication across the network containing IPv4 components, using the determined address to communicate with that IPv6 connect agent.~~

a software portion that transmits a query identifying the IPv6 enabled node to a Domain Name System server;

a software portion that receives at least one name of an IPv6 connect agent from the Domain Name System server;

a software portion that transmits a name of a desired IPv6 connect agent to the Domain Name System server;

a software portion that receives an address of the desired IPv6 connect agent from the Domain Name System server; and
a software portion that engages in IPv6 communication across the network containing IPv4 components using the address.

26. (Cancelled)

27. (Cancelled)

28 (Cancelled)

29. (Cancelled)

30. (Currently Amended) A ~~system for a~~ Domain Name System server device in a network containing IPv4 components to provide to an IPv6 enabled node an address of an IPv6 connect agent, the ~~system~~ Domain Name System server device comprising:

~~a software portion configured to, responsive to the Domain Name System server receiving a query from an IPv6 enabled node, the query identifying the IPv6 enabled node, determine at least one identifier of at least one IPv6 connect agent; and~~

~~a software portion configured to send to the IPv6 enabled node the least one identifier of the least one IPv6 connect agent.~~

a software portion that receives a query identifying the IPv6 enabled node from the IPv6 enabled node;

a software portion that transmits at least one name of one IPv6 connect agent to the IPv6 enabled node;

a software portion that receives a name of a desired IPv6 connect agent from the IPv6 enabled node; and
a software portion that transmits an address of the desired IPv6 connect agent to the IPv6 enabled node.

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Currently Amended) The ~~system~~Domain Name System server device of claim [[33]] 30, further comprising:

~~a software portion configured to use the received name of the desired IPv6 connect agent to find a record in a lookup table; and~~
~~a software portion configured to glean from the found record an identifier of an IPv6 connect agent to send to the IPv6-enabled node~~
a software portion that searches a record corresponding to the name of the desired IPv6 connect agent from a lookup table; and
a software portion that finds the address of the desired IPv6 connect agent from the record.

35. (Currently Amended) A computer readable storage medium containing a ~~computer program product~~ for an IPv6 enabled node to engage in IPv6 communication across a network containing IPv4 components, ~~the computer program product comprising the program making a computer~~ execute:

~~program code for sending a query to a Domain Name System server, the query
identifying the IPv6 enabled node;~~

~~program code for receiving, responsive to sending the query, at least one identifier of at
least one IPv6 connect agent from the Domain Name System server;~~

~~program code for determining an IPv6 connect agent to use to engage in IPv6
communication across the network containing IPv4 components;~~

~~program code for determining an address of that ipv6 connect agent; and~~

~~program code for engaging in IPv6 communication across the network containing IPv4
components, using the determined address to communicate with that IPv6
connect agent.~~

transmitting a query identifying the IPv6 enabled node to a Domain Name System
server;

receiving at least one name of an IPv6 connect agent from the Domain Name System
server;

transmitting a name of a desired IPv6 connect agent to the Domain Name System server;

receiving an address of the desired IPv6 connect agent from the Domain Name System
server; and

engaging in IPv6 communication across the network containing IPv4 components using
the address.

36. (Cancelled)

37. (Cancelled)

38. (Cancelled)

39. (Cancelled)

40. (Currently Amended) A computer readable storage medium containing a ~~computer program product~~ for a Domain Name System server in a network containing IPv4 components to provide to an IPv6 enabled node an address of an IPv6 connect agent, ~~the computer program product comprising the program making a computer execute:~~

~~program code for determining, responsive to the Domain Name System server receiving a query from an IPv6 enabled node, the query identifying the IPv6 enabled node, the Domain Name System server, at least one identifier of at least one IPv6 connect agent; and~~

~~program code for sending to the IPv6 enabled node the least one identifier of the least one IPv6 connect agent.~~

receiving a query identifying the IPv6 enabled node from the IPv6 enabled node;

transmitting at least one name of one IPv6 connect agent to the IPv6 enabled node;

receiving a name of a desired IPv6 connect agent from the IPv6 enabled node; and

transmitting an address of the desired IPv6 connect agent to the IPv6 enabled node.

41. (Cancelled)

42. (Cancelled)

43. (Cancelled)

44. The computer readable storage medium of claim [[43]] 40, ~~the computer program product further comprising program making the computer further execute:~~

program code for using the received name of the desired IPv6 connect agent to find a record in a lookup table; and

program code for gleaning from the found record an identifier of an IPv6 connect agent to send to the IPv6 enabled node

searching a record corresponding to the name of the desired IPv6 connect agent from a lookup table; and

finding the address of the desired IPv6 connect agent from the record.

45. (Currently Amended) ~~An system for an IPv6 enabled node to engage in IPv6 communication across a network containing IPv4 components, the system comprising:~~
- ~~means for sending a query to a Domain Name System server, the query identifying the IPv6 enabled node;~~
 - ~~means for receiving, responsive to having sent the query, at least one identifier of at least one IPv6 connect agent from the Domain Name System server;~~
 - ~~means for determining an IPv6 connect agent to use to engage in IPv6 communication across the network containing IPv4 components;~~
 - ~~means for determining an address of that IPv6 connect agent; and~~
 - ~~means for engaging in IPv6 communication across the network containing IPv4 components, using the determined address to communicate with that IPv6 connect agent.~~
 - means for transmitting a query identifying the IPv6 enabled node to a Domain Name System server;
 - means for receiving at least one name of an IPv6 connect agent from the Domain Name System server;

means for transmitting a name of a desired IPv6 connect agent to the Domain Name System server;
means for receiving an address of the desired IPv6 connect agent from the Domain Name System server; and
means for engaging in IPv6 communication across the network containing IPv4 components using the address.

46. (Cancelled)

47. (Cancelled)

48. (Cancelled)

49. (Cancelled)

50. (Currently Amended) A ~~system for a~~ Domain Name System server device in a network containing IPv4 components to provide to an IPv6 enabled node an address of an IPv6 connect agent, the ~~system~~ Domain Name System server device comprising:

means for determining, responsive to the Domain Name System server having received a query from an IPv6 enabled node, the query identifying the IPv6 enabled node, at least one identifier of at least one IPv6 connect agent; and
means for sending to the IPv6 enabled node the least one identifier of the least one IPv6 connect agent;
means for receiving a query identifying the IPv6 enabled node from the IPv6 enabled node;

means for transmitting at least one name of one IPv6 connect agent to the IPv6 enabled node;

means for receiving a name of a desired IPv6 connect agent from the IPv6 enabled node;

and

means for transmitting an address of the desired IPv6 connect agent to the IPv6 enabled node.

51. (Cancelled)

52.(Cancelled)

53. (Cancelled)

54. (Currently Amended) The ~~system~~Domain Name System server device of claim [[53]] 50, further comprising:

means for using the received name of the desired IPv6 connect agent to find a record in a lookup table; and

~~means for gleanng from the found record an identifier of an IPv6 connect agent to send to the IPv6-enabled node~~

means for searching a record corresponding to the name of the desired IPv6 connect agent from a lookup table and

means for finding the address of the desired IPv6 connect agent from the record.